

**Abstract**

The invention relates to a method for determining whether a treatment of a disorder with an HDAC inhibitor is to be started/continued or not comprising determining the level of histone acetylation in the sample by use of an antibody capable of binding to acetylated histone, and classifying the disorder as to be treated with an HDAC inhibitor when the level of histone acetylation is significantly lower than that of a reference sample. The invention further relates to the diagnostic and prognostic use of specific antibodies and cell lines producing them.

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(57) Abstract: The invention relates to a method for determining whether a treatment of a disorder with an HDAC inhibitor is to be started/continued or not comprising determining the level of histone acetylation in the sample by use of an antibody capable of binding to acetylated histone, and classifying the disorder as to be treated with an HDAC inhibitor when the level of histone acetylation is significantly lower than that of a reference sample. The invention further relates to the diagnostic and prognostic use of specific antibodies and cell lines producing them.

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